Claims

1. Transverse bolt (1) for mounting to a formwork element (110, 120) of a concrete formwork, comprising:

a first transverse bolt end region (5) at a first end of the transverse bolt disposed in the longitudinal direction of the transverse bolt (1), wherein the transverse bolt (1) has at least one elongated hole (3) and at least one round hole (4), and

a bolt fixture (2) for mounting the transverse bolt (1) to the formwork element (110, 120),

characterized in that the elongated hole (3) and the round hole (4) are disposed next to each other in the first end region (5) of the transverse bolt, preferably, in the longitudinal direction of the transverse bolt (1).

- 2. Transverse bolt according to claim 1, characterized in that the transverse bolt (1) comprises a second transverse bolt end region (5) at a second transverse bolt end disposed opposite to the first transverse bolt end in a longitudinal direction of the transverse bolt (1), wherein the transverse bolt end regions (5) each have, in the longitudinal direction of the transverse bolt (1), at least one correspondingly disposed round hole (4) next to at least one elongated hole (3).
- Transverse bolt according to claim 2, characterized in that the bolt fixture (2) has the shape of a hat or trapezoid and/or has openings (10) to pass a screw for mounting the transverse bolt (1) to the formwork element (110, 120) and/or is disposed on the transverse

- bolt (1) in a central region of the transverse bolt (1) between the ends of the transverse bolt.
- 4. Transverse bolt according to claim 1, characterized in that, as viewed in the longitudinal direction of the transverse bolt (20), the bolt fixture (2) is disposed opposite to the first transverse bolt end.
- 5. Transverse bolt according to claim 4, characterized in that the bolt fixture (2) is connected to an edge support element (104) of the formwork elements (110, 120).
- 6. Transverse bolt according to at least one of the claims 1 through 5, characterized in that the transverse bolt (1) is designed as a U-shaped profiled section, and the transverse bolt end regions (5) of the transverse bolt ends are each formed as extensions of both legs of the U-shaped profile, wherein the elongated hole (3) and the round hole (4) penetrate through both extensions of the transverse bolt end at each transverse bolt end region (5) to form bolt ducts.
- 7. Transverse bolt according to at least one of the claims 1 through 6, characterized in that the bolt fixture (2) is rigidly connected, preferably welded, to the transverse bolt (1) or is formed by one end of the transverse bolt (1).
- 8. Transverse bolt according to at least one of the claims 1 through 7, characterized in that, in its longitudinal direction, the rocker-shape of the elongated hole (3) has at least one bend, wherein the shape of the bend corresponds to the round shape of a concrete wall to be formed by the concrete formwork (100).

- 9. Curved concrete formwork (100) comprising at least one formwork element (110, 120), characterized in that the transverse bolt (1) according to at least one of the claims 1 through 8 is mounted to the curved concrete formwork (100) in such a manner that one end of a first transverse bolt (1) at least partially overlaps an end of a second transverse bolt (1), wherein the elongated hole (3) of the first transverse bolt end overlaps the round hole (4) of the second transverse bolt end in such a manner that a first bolt duct is formed and the elongated hole (3) of the second transverse bolt end overlaps the round hole (4) of the first transverse bolt end in such a manner that a second bolt duct is formed.
- 10. Curved concrete formwork according to claim 9, characterized in that the transverse bolts (1) are connected at their overlapping transverse bolt ends, via a telescopic spindle configuration (130), to a spindle (131) which connects two bolts (132), wherein the bolts (132) are disposed in the first and second bolt ducts.
- 11. Curved concrete formwork according to claim 10, characterized in that the bolts (132) each have a threaded screw hole, wherein the spindle (131) is screwed into the threaded screw holes and one of the threaded screw holes is designed as left-hand thread and the other as a right-hand thread.
- 12. Curved concrete formwork (100) according to at least one of the claims 10 or 11, characterized in that the curved concrete formwork (100) is formed from formwork elements (110, 120) which comprise support elements (102) and edge support elements (104) mounted to a formwork shell (101), to which the transverse bolts (1) or the edge transverse bolts (20) are mounted via the bolt fixtures (2) thereof.

- 13. Curved concrete formwork (100) according to claim 12, characterized in that the support elements (102) have recesses (103) for passage of tie bolts and/or for mounting working platforms and/or for connecting arbitrary connecting elements.
- 14. Curved concrete formwork (100) according to claim 12 or 13, characterized in that at least one edge transverse bolt (20) according to at least one of the claims 4 or 5 is mounted to the edge support element (104), wherein the edge support element (104) comprises a resilient shackle (203), which is disposed on a side of the edge support element (104) facing away from the edge of the formwork shell (101), and wherein the shackle (203) is mounted to the formwork shell (101) and designed in such a manner that when the transverse bolts (1) and the edge transverse bolts (20) load the shackle (203), the shackle (203) follows the bending direction of the formwork shell (101).